



ELECTRONIC TUBE REFERENCE

E99F

Voltage Pentode - Remote Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Premium variable-slope high-frequency pentode designed for mobile and industrial service. Amperex documentation combines controlled-gain HF amplification with premium construction for demanding professional applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.0038 S
AMPLIFICATION FACTOR	25
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	100 V
MAXIMUM PLATE DISSIPATION	3.3 W
MAXIMUM CATHODE CURRENT	17 mA
<i>Promoted from clearly identified published ratings/characteristics; additional operating points, capacitances, detector data, microwave data, and special-quality limits are retained in TUBE_SECTION_PARAMETER.</i>	

E99F is listed in the supplied Amperex material as a premium variable-slope HF pentode for mobile/industrial service. Published ratings and characteristics were captured from the supplied table.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1963 AMPEREX CONDENSED

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published rating
Heater current	150 mA	Published rating
Published characteristic value	4.5	MobileHF
Published characteristic value 2	5.2	MobileHF

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published capacitance	0.0035 pF	MobileHF



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V1a

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	250 V	RF Amplifier
Screen supply voltage	100 V	RF Amplifier

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode resistor	80 Ω	RFAmplifier
Plate current	9.2 mA	RFAmplifier
Screen current	3.3 mA	RFAmplifier
Shock resistance approximately	500 g	SpecialQuality

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3800 μS	Section1
Grid-2/grid-1 amplification factor	25	Section1
Plate resistance	1 M Ω	Section1
Equivalent noise resistance	3.5 k Ω	Section1
Life expectancy	1000 h	LifeTestConditions

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance maximum	0.003 pF	Section1
Plate capacitance	5 pF	Section1
Grid capacitance	4.5 pF	Section1


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V3

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1963 PHILIPS ELECTRON TUBES HANDBOOK V3

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	150 mA	Published heater rating

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3800 μ S	MobileHF
Amplification factor	25	MobileHF
Plate resistance	1000000 ohm	MobileHF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	250 V	MobileHF
Screen supply voltage	100 V	MobileHF
Plate current	9.2 mA	MobileHF

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	4.5 pF	Published
Grid-to-plate capacitance	0.0035 pF	Published



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS E-Z

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
et parallèle ou $I_r ==$	150 mA	Published datasheet value
Chauffage: indirect par C.A. ou C.C.; $V_e =$	63 V	Published datasheet value
série $I_r =$	150 mA	Published datasheet value
$C_{g1l}) =$	0.0035 pF	Published datasheet value
$C_{g1'}) =$	-5.1 pF	Published datasheet value
$V_{g2} =$	100 V	Published datasheet value
$V_{gs} = 0 \text{ v } R_i =$	80 Ω	Published datasheet value
$V_{g1} =$	6.2 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
$v S =$	2.8 mA/V	Published datasheet value
$b_l =$	5 V	Published datasheet value
$V_{og2} =$	100 V	Published datasheet value
$s =$	3.01 mA/V	Published datasheet value
$C_{ag1} : \xi =$	6.31 V	Published datasheet value
$C_{a \sim } \}) =$	-5.6 pF	Published datasheet value
$C_{g1 }) =$	-5.1 pF	Published datasheet value
$V_a =$	250 V	Published datasheet value
$V_{egs} =$	80 Q	Published datasheet value
$V_{gi} =$	6.2 mA	Published datasheet value
$[S =$	2.8 mA	Published datasheet value
$V_{bga} =$	3.5 kQ	Published datasheet value
Sans blindage extérieur ~I _{g1} = <	0.5 pA	Published datasheet value
Life expectancy	1000 h	Published datasheet value
$V_e =$	80 Q	Published datasheet value
$V_{pa} =$	250 V	Published datasheet value
$V_{gs} = 0V \text{ } V_{ir} =$	135 V	Published datasheet value
$V_{bgg} =$	100 V	Published datasheet value
Vibrational forces for a period of	32 h	Published datasheet value
$V_e =$	63 V	Published datasheet value
$V_{gs} = 0V \text{ } V_{ygplkneg.}) =$	135 V	Published datasheet value
$V_{bge} =$	100 V	Published datasheet value
$V_{ba} =$	250 V	Published datasheet value
$V_{ogz} =$	100 V	Published datasheet value
$V_{ap} = \max$	600 V	Published datasheet value
$V_g = \max$	330 V	Published datasheet value
$W_y = \max$	557 V	Published datasheet value
$V_{goo} = \max$	17 mA	Published datasheet value
R _{g1} < en polarisation fixe = max	0.5 MQ	Published datasheet value
$V_{ba} =$	2 kQ	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
V _{ogz} =	80 Ω	Published datasheet value
V _{S3} = ov C _x =	1000 pF	Published datasheet value
V _{ag} = max	600 V	Published datasheet value
W _a = max	55 V	Published datasheet value
V _{gao} = max	17 mA	Published datasheet value
= max	100 V	Published datasheet value
R _{g1}	0.5 MΩ	Published datasheet value
La valeur de	135 V	Published datasheet value
Der Wert von	135 V	Published datasheet value
V _{ga} =	100 V	Published datasheet value
V _{gz} =	0 V	Published datasheet value